

What is claimed is:

1. An abrasive pad comprising an abrasive substrate having a polishing surface and a light transmitting member which is fused to the abrasive substrate and comprises a water-insoluble matrix material and a water-soluble substance dispersed in the water-insoluble matrix material.
2. The abrasive pad of claim 1, wherein at least part of the water-insoluble matrix material is a crosslinked polymer.
3. The abrasive pad of claim 2, wherein the crosslinked polymer is crosslinked 1,2-polybutadiene.
4. The abrasive pad of claim 1, wherein the light transmitting member is made thin in a direction perpendicular to the polishing surface of the abrasive substrate.
5. The abrasive pad of claim 1, wherein the materials of the light transmitting material and the abrasive substrate differ from each other in type and/or ratio.
6. The abrasive pad of claim 1 which has a fixing layer for fixing the abrasive pad on a polishing machine, which is formed on the rear surface opposite to the polishing surface of the abrasive pad.
7. A method of manufacturing the abrasive pad of claim 1, comprising holding a previously formed light transmitting member for an abrasive pad at a predetermined position in the cavity of a metal mold for insert molding and injecting the material of an abrasive substrate into the remaining space in the cavity to fuse the light transmitting member to the abrasive substrate.

8. A method of manufacturing the polishing pad of claim 1, comprising holding a previously formed abrasive substrate having a hole for accepting a light transmitting member in the cavity of a metal mold for insert molding and injecting the material of the light transmitting member into the hole for accepting the light transmitting member to fuse the abrasive substrate to the light transmitting member.
9. A metal mold for insert molding for the manufacture of the abrasive pad of claim 1, which has a projection portion(s) and/or a depressed portion(s) for holding a light transmitting member or an abrasive substrate for an abrasive pad in a cavity.
10. An abrasive laminated pad comprising the abrasive pad of claim 1 and a base layer having light transmission properties formed on the rear surface opposite to the polishing surface of the abrasive pad.
11. An abrasive laminated pad comprising the abrasive pad of claim 1, a base layer formed on the rear surface opposite to the polishing surface of the abrasive pad, and a fixing layer for fixing the pad on a polishing machine, formed on the side opposite to the abrasive pad of the base layer.
12. A method of polishing a semiconductor wafer with an abrasive pad, characterized in that the abrasive pad of claim 1 or the abrasive laminated pad of claim 10 or 11 is used, and the polishing end point of the semiconductor wafer is detected by an optical end-point detection device through the light transmitting member of the abrasive pad or the abrasive laminated pad.